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EXAMINER	
NELSON, MICHAEL B	

ART UNIT	PAPER NUMBER
1794	

NOTIFICATION DATE	DELIVERY MODE
09/10/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

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DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed on 08/31/09 have been considered but are not persuasive. The examiner thanks the applicant for pointing out that the "substantially incompressible" limitation had in fact been removed from the claims by amendment. The 112 2nd paragraph rejection related to that limitation is subsequently withdrawn.

Regarding applicant's arguments against the optimization of the weight ratio of the walls to the weight ratio of the bottom, the examiner disagrees that it would not be obvious. Specifically the applicant alleges that the examiner has not explained how the weight of the walls would be optimized; however, one having ordinary skill in the art would obviously appreciate that the thickness of the walls would be the means of controlling the weight of the walls. As the examiner has provided clear motivation to alter the thickness of the bottom portion of Hideaki to provide structural support, this rational would also provide for the weight of the bottom portion, being a function of thickness, to be adjusted to optimize structural support as well. The weight would also obviously be adjusted to reduce the cost of manufacturing. The applicant cites Beck to argue against the altering of the thickness of the portions of the bottle, yet Beck's cited portion clearly shows that "redistribution of the material" (i.e. making one part of the bottle thicker than another) was a known method of making a bottle "structurally sound." This is also clear evidence in the prior art that the controlling of the thickness of the portions of the bottle is considered a result effective variable.

Regarding the amount of PET used per volume of the bottle, the examiner first maintains that this would be affected by the shape of the bottle as much as by the crystallinity of the PET

(i.e. a spherical bottle would have a higher volume to weight ratio that a very narrow and tall cylindrical bottle). Even under applicant's line of reasoning, the Hutchinson reference clearly shows that the crystallinity (i.e. density) of the PET would be affected by the degree of stretching the PET undergoes in the production process. Therefore that variable (being only one of the many variables which would affect the volume/weight ratio) would also be optimizable to control the cost to make a bottle which contains a certain amount of liquid. In addition to the density of the material used, the thickness would also be a way one having ordinary skill in the art would adjust the amount of material needed to contain a certain volume of liquid.

Regarding applicant's arguments against the specific thickness of the bottom portion, the examiner maintains his original grounds of rejection:

"Regarding the thickness limitations, Hideaki et al. discloses that the walls, 3, to the bottom, 4, have a thickness of between 20 and 50 micrometers while the un-stretched neck portion has a thickness of between 200 and 500 micrometers ([0007]-[0010]). Hideaki et al. does not disclose a thickened bottom portion as instantly claimed. Beck et al. shows a structurally resilient bottom portion structure. The thickness of the wall portions, D1, and the tip of the feet, B, are relatively thin compared to the thickness in between the feet portions, A, (Fig. 3). The added thickness in the bottom portion provides extra stability to the bottle for when the bottle is set down on a table or dropped on the floor (i.e. one having ordinary skill in the art would find if obvious that the bottom of a bottle benefits from added structural support). Hideaki discloses that the bottle of his invention has two wall thicknesses: a structurally stable wall thickness of 0.2-0.3 mm (i.e. for the shoulders of the bottle as seen in Fig. 1 and 2) and a ultra thin thickness of 0.02-0.05 (See Claim 1). Hence to create the structurally stable bottom

portion for the bottle of Hideaki (as would be obvious to one having ordinary skill as explained above) the wall thickness of 0.2-0.3 mm would be used in the thicker bottom portions (i.e. in between the feet) and the wall thickness of 0.02 to 0.05 would be used for the thinner portions (i.e. the feet and the container walls). Moreover, while Beck et al. shows the general structure of the bottom of a container, the exact thicknesses of the various portions of the container would have been adjusted by one having ordinary skill in the art to provide both adequate structural support and still reduce the cost to manufacture as much as possible."

2. The two thickness ranges of Hideaki would have obviously been used in the thick wall portion/thin wall portion bottle design of Beck to provide adequate structural support. The examiner also notes that the thickness of 200 microns reads on the 200-500 micron thick range of the instant claim. The motivation for this combination is not hindsight reasoning, but merely the application of the structurally sound bottle design of Beck to the inventive thickness ranges obtainable by Hideaki.

Conclusion

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL B. NELSON whose telephone number is (571) 270-3877. The examiner can normally be reached on Monday through Thursday 6AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Sample can be reached on (571) 272-1376. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/MN/
09/02/09

/Callie E. Shosho/
Supervisory Patent Examiner, Art Unit 1794